

**METHODS OF READING AND/OR WRITING DATA TO MEMORY DEVICES  
INCLUDING VIRTUAL GROUND LINES AND/OR MULTIPLE WRITE CIRCUITS  
AND RELATED DEVICES**

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**Abstract of the Disclosure**

Methods can be provided for reading data from a memory device comprising a plurality of memory cells and a plurality of virtual ground lines wherein each memory cell comprises a latch circuit coupled to a read circuit and wherein each virtual ground line is coupled with read circuits of a respective group of memory cells.

10 Methods for reading according to embodiments of the present invention can include selecting a memory cell from which data is to be read, applying a first reference voltage to a virtual ground line coupled to the selected memory cell from which data is to be read, and applying a second reference voltage to a virtual ground line not coupled to the selected memory cell. A read word line coupled to the read circuit of the selected memory cell from which data is to be read can be activated.

15 Responsive to activating the read word line coupled to the read circuit of the selected memory cell from which data is to be read, data can be coupled from the latch circuit of the selected memory cell with a respective read bit line through the read circuit of the selected memory cell. Methods of writing are also discussed, as

20 are related memory devices and cells.